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TITLE : PRODUCTION OF SHEET

ABSTRACT : PURPOSE: To obtain a sheet improved in adhesion of a printing ink or the like by subjecting a sheet of a thermoplastic resin or a thermoplastic elastomer containing additives to discharge treatment and stretching the film.

CONSTITUTION: 100 pts. wt. thermoplastic resin (e.g. PP) or thermoplastic elastomer (e.g. ethylene/propylene copolymer) is mixed with additives such as 65-400 pts.wt. inorganic filler (e.g. alumina) of a particle diameter of 0.01-500 $\mu$ m and a stabilizer, and the obtained mixture is optionally pelletized and molded to obtain a sheet. This sheet is subjected to corona discharge or plasma discharge treatment in an inert gas atmosphere containing 5.45 vol. % hydrogen gas and stretched at least uniaxially in a draw ratio of 2-5 and an areal draw ratio of 1.5-16 to obtain a moisture-permeable and water-impermeable sheet having properties selected from among a thickness of 30-50 $\mu$ m, a mean pore diameter of 0.1-1 $\mu$ m, a void volume of 20-40%, an air permeability of 500-5000sec/100cc, a moisture permeability of 1500-3000g/m<sup>2</sup>/24hr, a tear strength of 80-150g (by Elemendorf test), and a flexibility of 60-90 (cantilever method).

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